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UNITHERM Food Systems, Inc.										Date: 2/7/97
Cooking Trial Data										
Test #	Belt Speed	Cook Time	Product: Turkey Breast		Start Weight	Cooked Weight	Yield	Supplied By: BOARS HEAD	Internal Temp. F.	Remark
			Temperatures C.							
			Zone 1	Zone 2						
#1	48	10 MIN	550	650						30% MES-POLY
#2	11	11	11	11						30% MES 100% EXCELLENCE
#3										50% MES POLY
#4										mes poly
#5										50/50% SKIN ON
#6										EX TEST SMOKE
NOTES										
#1										
#2										
#3										
#4										
#5										
#6										

PTO-004100

CONFIDENTIAL-ATTORNEY ONLY

U-8198

UNITHERM Food Systems, Inc.										Date: 2/7/97
Cooking Trial Data										
Test #	Belt Speed	Cook Time	Product: TURKEY BREAST		Temperatures C.		Start Weight	Cooked Weight	Yield	Supplied By: FURDUB
					Zone 1	Zone 2				
1, 2, 3	26	18 min	550	650					TOAST	3 - 1 OF EA. OVEN ROAST
4	80	6	550	650						30% MAILED OVEN ROAST
5	90	5.5	550	650						30% MAILED 5.5 MIN
6	103	5	550	650						30% MAILED 5.0
7	103	5	550	650					2.6%	30% SMOKE 24P
8	GOOD	4.5 min							2.2	30% 24P
9 GOOD 30% 24P										
1, 2, 3 - TOAST - (BURNT TOAST)										
4 LOOKS OK - MAYBE A BIT DARK										
5 GOOD										
6 GOOD										
7 REAL GOOD										
8 GOOD										
9 GOOD										
10 - LIGHT - OK 30% 24P 5 MIN										
11 50, 50. 45 SEC. DIP 24P										
12 30% MAILED										
13 30 MGS POLY										
14 30% MAILED 30% 24P										
15 30% MAILED 30% 24P										
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97 30% MAILED 30% 24P										
98 30% MAILED 30% 24P										
99 30% MAILED 30% 24P										
100 30% MAILED 30% 24P										

ONE OF EACH

HEART

HEART

HEART

ROUND PORK

PLAIN

ROUND

HEART NOTES

1, 2, 3 - TOAST - (BURNT TOAST)

4 LOOKS OK - MAYBE A BIT DARK

5 GOOD

6 GOOD

7 REAL GOOD

8 GOOD

9 GOOD

10 - LIGHT - OK 30% 24P 5 MIN

11 50, 50. 45 SEC. DIP 24P

12 30% MAILED

13 30 MGS POLY

14 30% MAILED 30% 24P

15 30% MAILED 30% 24P

16 30% MAILED 30% 24P

17 30% MAILED 30% 24P

18 30% MAILED 30% 24P

19 30% MAILED 30% 24P

20 30% MAILED 30% 24P

21 30% MAILED 30% 24P

22 30% MAILED 30% 24P

23 30% MAILED 30% 24P

24 30% MAILED 30% 24P

25 30% MAILED 30% 24P

26 30% MAILED 30% 24P

27 30% MAILED 30% 24P

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31 30% MAILED 30% 24P

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40 30% MAILED 30% 24P

41 30% MAILED 30% 24P

42 30% MAILED 30% 24P

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45 30% MAILED 30% 24P

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96 30% MAILED 30% 24P

97 30% MAILED 30% 24P

98 30% MAILED 30% 24P

99 30% MAILED 30% 24P

100 30% MAILED 30% 24P

U-04859

U-04859

UNITHERM Food Systems, Inc.										Date: 2/7/97
Cooking Trial Data										
Test #	Belt Speed	Cook Time	Product: TURKEY BREASTS		Supplied By: PURDUE		Internal Temp. F.	Yield	Remark	
			Temperatures C.		Start Weight	Cooked Weight				
			Zone 1	Zone 2						
#4	80.00	6 MIN	550	650				-2.0%	HEART SHAPED OVEN ROAST	
#5	90.00	5.5 MIN	550	650				-2.1%	HEART SHAPED 30% MAILLOSE	
#6	103.00	5 MIN	550	650				-1.9%	HEART SHAPED 30% MAILLOSE	
#7	103.00	5 MIN	550	650				-2.6%	PLAIN ROUND PACK 30% CHARSOUL SELECT 24P	
#8	108.00	4.5 MIN	550	650				-2.2%	PLAIN ROUND PACK 30% CHARSOUL SELECT 24P	
#9	108.00	4.5 MIN	550	650				?	HEART SHAPED 30% CHARSOUL SELECT 24P	

NOTES

44

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U-04858

PTO-004102

UNITHERM Food Systems, Inc.										Date: 2/7/97
Cooking Trial Data										
Test #	Belt Speed	Cook Time	Product: TURKEY BREASTS		Start Weight	Cooked Weight	Yield	Supplied By: PURDUE		
			Temperatures C.	Zone 2				Internal Temp. F.	Remark	
#10	103.00	5 MIN	550	650			-3.5%		IMPERIAL PACK	
#11	103.00	10 MIN	550	650			3.25%		30% CHARSOUL SELECT 24P IMPERIAL PACK	
#12	103.00	5 MIN	550	650			?		30% CHARSOUL SELECT 24P IMPERIAL	
#13	103.00	5 MIN	550	650			-3.0%		30% MAICOSE PLAIN ROUND	
#14	103.00	10 MIN	550	650			-3.7%		30% OKLAHOMA SMOKE PLAIN ROUND	
#15	103.00	5 MIN	550	650			-3.6%		30% HICKORY PLAIN ROUND	
NOTES 16 2 RUNS 103.00			550	650			-4.2%		30% MESQUITE POLY	
#1									30% HICKORY	
#2										
#3										
#4										
#5										
#6										

U-05792

PTO-004103

#4 6 min 2.2 loss OVEN RAST

#7 ROUND  
PLAN 5m 2.6 loss 24P 30%

#5 5.5 min 2.1 loss 30 MAILOSE

#8 PLAIN  
ROUND 4.5 2.2 30 24P

#10 IMPERIAL 5min 3.5 30 24P

#11 IMPERIAL 10min 3.25 30 24P

#16 5min 1.9 30 MAILOSE

#13 PLAIN  
ROUND 5min 3% 30 OKLA  
smoke

#14 IMPERIAL 10min 3.7 30% HICKORY

#15 PLAIN  
ROUND 5 min. 3.6% 30 MES Poly

#16 PLAIN  
ROUND 10min 4.2 30% HICKORY

U-04860

PTO-004104

# UNITHERM Food Systems, Inc.

## Cooking Trial Data

Date: 2/7/57

Supplied By: PURDUE

Product: Turkey Breasts

Internal Temp. F.

Yield

Cooked Weight

Start Weight

Temperatures C.

Cook Time

Belt Speed

Test #

ONE OF EACH

SAMPLE 1, 2, 3

18 min

Zone 1 550° Zone 2 650°

1.2

45 SEC

BURNT

3 PER 10 T EA. OVEN BAST

HEART

#4

6 min

550° 650°

1.2

45 SEC

BURNT

NATURAL CURED MEAT

HEART

#5

5 min

550° 650°

1.2

45 SEC

45 SEC. SWELL WATILLOE NICE

30% WATILLOE @ 5.5 min

HEART

#6

5 min

550° 650°

1.2

45 SEC

45 SEC. REAL NICE

30% WATILLOE @ 5 min

PLAIN

#7

5 min

550° 650°

1.2

30 SEC

OK

30% WATILLOE @ 5 min

PLAIN

#8

4 min

550° 650°

1.2

30 SEC

OK

30% WATILLOE @ 5 min

HEART

#9

4 min

550° 650°

1.2

30 SEC

PERFECT

30% WATILLOE @ 5 min

BURNT - MUCH TOO SLOW! SPEED UP OVEN

#4 LOOKS OK, MAYBE A BIT TOO DARK -

#5 BETTER

#6 GOOD

#7 GOOD

#8 REAL NICE!

#9 GOOD

#5

#6

U-03969

PTO-004105

# NORBEST TURKEY BREAST

8.945 = 96%

#1 SKINLESS IN @ 9.275 OUT @ 8.89  
SET @ 35 HZ - 8 MIN. 600 - 650  
SMOKE @ 30% CHAR SOL SELECT 24 P. ~~95%~~

#2 SKINLESS @ 9.58 IN OUT @ 9.3 97%  
SET 56 HZ - 5 MIN 600-650  
30% 24P

# SKIN ON IN 10.4 <sup>w PORK</sup> 9.96 = 95%  
40 HZ - 7 MIN 600-650  
30% 24P ~~9.5 OUT 90%~~

#2 SKIN ON 9.845 IN OUT 7.4 95%  
40 HZ - 7 MIN 600 650  
50% MAILOCSE



# UNITHERM Food System , Inc.

## Cooking Trial Data

Test #		Belt Speed	Cook Time	Product: TURKEY BREASTS		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Supplied By:	Remark
				Temperatures C.	Zone 2						
#10		103.00	5 MIN	550	650			-3.5%		IMPERIAL PACK	
#11		2 RUNS 103.00	10 MIN	550	650			3.25%		30% CHARCOAL SELECT 24P IMPERIAL PACK	
#12								?		30% CHARCOAL SELECT 24P IMPERIAL	
#13		103.00	5 MIN	550	650					30% MALLOSE PLAIN ROUND	
#14		103.00	5 MIN	550	650			-3.0%		30% OKLAHOMA SMOKE PLAIN ROUND	
#15		103.00	10 MIN	550	650			-3.7%		30% HICKORY PLAIN ROUND	
#16		103.00	5 MIN	550	650			-3.6%		30% MESQUITE POLY	
NOTES	16	2 RUNS 103.00	10 MIN	550	650			-4.2%		30% HICKORY	
#1											
#2											
#3											
#4											
#5											
#6											

Date: 2/7/97

# UNITHERM Food Systems, Inc.

## Cooking Trial Data

Date: 2/7/91

Test #	Belt Speed	Cook Time	Product: TURKEY BREASTS		Start Weight	Cooked Weight	Yield	Supplied By: PURDUE	R mark
			Temperatures C.						
			Zone 1	Zone 2					
#4	80.00	6 MIN	550	650			-2.0%	HEART SHAPED OVEN ROAST	
#5	90.00	5.5 MIN	550	650			-2.1%	HEART SHAPED 30% MAILLOE	
#6	103.00	5 MIN	550	650			-1.9%	HEART SHAPED 30% MAILLOE	
#7	103.00	5 MIN	550	650			-2.6%	PLAIN ROUND PACK 30% CHARCUT SELECT 24P	
#8	108.00	4.5 MIN	550	650			-2.2%	PLAIN ROUND PACK 30% CHARCUT SELECT 24P	
#9	108.00	4.5 MIN	550	650			?	HEART SHAPED 30% CHARCUT SELECT 24P	

## NOTES

#4

#5

#6

#7

#8

#9

U-03964

PTO-004108

JNITHERM Food Systems, Inc.										Date: 2/7/97	
Cooking Trial Data											
Test #	Belt Speed	Cook Time	Product: TURKEY BREASTS		Start Weight	Cooked Weight	Yield	Supplied By: PURDUE	Internal Temp. F.	Remark	
			Temperatures C.	Zone 2							
			Zone 1								
#4	80.00	6 MIN	550	650			-2.0%			HEART SHAPED OVEN ROAST	
#5	90.00	5.5 MIN	550	650			-2.1%			HEART SHAPED 30% MAILLOE	
#6	103.00	5 MIN	550	650			-1.9%			HEART SHAPED 30% MAILLOE	
#7	103.00	5 MIN	550	650			-2.6%			PLAIN ROUND PACK 30% CHARCUT SELECT 24P	
#8	108.00	4.5 MIN	550	650			-2.2%			PLAIN ROUND PACK 30% CHARCUT SELECT 24P	
#9	108.00	4.5 MIN	550	650			?			HEART SHAPED 30% CHARCUT SELECT 24P	
NOTES											

U-03965

PTO-004109

# UNITHERM Food Systems, Inc.

## Cooking Trial Data

Test #	Belt Speed	Cook Time	Product: TURKEY BREAST				Yield	Supplied By: PURDUE	Remarks
			Temperatures C.		Cooked Weight	Internal Temp. F.			
			Zone 1	Zone 2					
1, 2, 3	26	18 min	550	650		TOAST		3 - 1 OF EA. OVEN ROAST	
4	80	6	550	650				30% MARGOS OVEN ROAST	
5	90	5.5	550	650				30% MARGOS 5.5 min	
6	103	5	550	650				30% MARGOS 5.5 min	
PACK 7	103	5	550	650			2.6%	30% smoke 24P	
8	GOOD	4.5 min					2.2	30% 24P	

HEART NOTES 9 GOOD

#1, 2, 3 - TOAST - (BURNT TOAST)  
 #4 LOOKS OK - MAYBE A BIT DARK

#5 GOOD

#6 GOOD

#7 REAL GOOD

#8 GOOD

#9 GOOD

#10 - LIGHT - OR 30% 24P 5 MIN

#11 50, 50. 45 SEC. DIP 24P

#12 30% MARGOS

#13 30 MGS POLY

#14 30% MARGOS 30% POLY OK 1A. SMOKE

#15 20% 11 1/2 MIN

U-03966

PTO-004110

Date: 2/7/97

ONE OF EACH

HEART

HEART

HEART

ROUND PLAIN

PLAIN

ROUND

5450 IMPERIAL

11

11

PLAIN

ROUND

PLAIN

ROUND

#4 6 min. 2.2 loss OVER RAST

#7 ROUND  
PLAIN 5m 2.6 loss 24P 30%

#5 5.5 min 2.1 loss 30 MAILOSE

#8 PLAIN  
ROUND 4.5 2.2 30 24P

#10 IMPERIAL 5min 3.5 30 24P

#11 IMPERIAL 10 min 3.25 30 24P

#6 5min 1.9 30 MAILOSE

#13 PLAIN  
ROUND 5min 3% 30 OKLA  
SMOKO

#14 IMPERIAL 10 min 3.7 30% HICKORY

#15 PLAIN  
ROUND 5 min. 3.6% 30 MES Poly

#16 PLAIN  
ROUND 10 min 4.2 30% HICKORY

U-03967

PTO-004111

# UNITHERM Food Systems, Inc.

## Cooking Trial Data

Test #	Belt Speed	Cook Time	Product: Turkey Breast		Start Weight	Cooked Weight	Yield	Supplied Internal Temp. F.	Remarks
			Temperatures C.	Zone 1	Zone 2				
1, 2, 3	26	18 MIN	55C	55C	65C				3 - 1 CF EA. OVER ROAST
4	80	6	55C	55C	65C				30% MAIL LOSS OVEN ROAST
5	90	5.5	55C	55C	65C				30% MAIL LOSS S. S. MIN
6	103	5	55C	55C	65C				30% MAIL LOSS S. C
7	103	5	55C	55C	65C		2.6%		30% SMOKE 24P
8	GOOD	4.5 MIN					2.2	30%	24P

HEART NOTES 9 GOOD

#1, 2, 3 - TOAST - (BURNT TOAST)  
#4 LEAKS OK - WAYBE A BIT DARK

#5 GOOD

#6 GOOD

#7 REAL GOOD

#8 GOOD

#9 GOOD

#10 - LIGHT - OR 30% 24P SMIN

#11 50, 50. 45 SEC. DIP 24P

#12 30% MAIL LOSS

#13 30 MGS POLY

#14 30% MAIL LOSS POLY OKCA. SMOKE

Date: 2/7/97

Supplied By: FORD

U-03968

PTO-004112

# UNITHERM Food Systems, Inc.

## Cooking Trial Data

Date: 2/7/57

Supplied By: PURDUE

Product: Turkey Breasts

Test #	Belt Speed	Cook Time	Temperatures C.		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Remarks
			Zone 1	Zone 2					
SAMPLE 1, 2, 3		18 min	550°	650°	45 SEC				
#4	26	6 min	550°	650°	"		BURNT		3 Pcs. 10 F EA. OVERBAST
#5	80	5 min	"	"	"	45 SEC. SWELL MAILLOSE			NATURAL OVEN REAST
#6	90	5 min	"	"	"	45 SEC. MAILLOSE NICE.			30% MAILLOSE @ 5.5 min
#7	103	5 min	"	"	30 SEC.	REAL NICE.			30% MAILLOSE @ 5 min.
#8	103	5 min	550°	650°	30 SEC.	"	OK.		30% MAILLOSE @ 24 P
HEART			"	"	30 SEC.	"	PERFECT		30% 24 P Smoke
			"	"	"	"	"		30% 24 P.

BURNT - MUCH TOO SLOW; SPEED UP OVEN

#4 LOOKS OK, MAYBE A BIT TOO DARK -

#5 BETTER

#6 GOOD

#7 GOOD

#8 REAL NICE!

#9 GOOD

#5

#6

U-03969

PTO-004113

# NORBEST TURKEY BREAST

#1 SKINLESS IN @ 9.275 OUT @ 8.89  
SET @ 35 HZ - 8 MIN. 600 - 650  
SMOKE @ 30% CHARSOUL SELECT 24 P.  $8.945 = 96\%$   
95%

#2 SKINLESS @ 9.58 IN OUT @ 9.3  
SET 56 HZ - 5 MIN 600-650 97%  
30% 24P

# SKIN ON IN 10.4  $9.96 = 95\%$   
40 HZ - 7 MIN 600-650 9.5 OUT 90%  
30% 24P

#2 SKIN ON 9.845 IN OUT 7.4 95%  
40 HZ - 7 MIN 600 650  
50% MAIL CASE



# UNITHERM Food Systems, Inc.

## Cooking Trial Data

Product: TURKEY BREAST			Supplied By: PURDUE		Internal Temp. F.	Remark			
Test #	Belt Speed	Cook Time	Temperatures C.				Start Weight	Cooked Weight	Yield
			Zone 1	Zone 2					
1, 2, 3	26	18 min	550	650				3 - 1 OF EA. OVER ROAST	
4	80	6	550	650				30% MAILLOSE OVEN ROAST	
5	90	5.5	550	650				30% MAILLOSE S.S.M.	
6	103	5	550	650				30% MAILLOSE S.C.	
7	103	5	550	650			2.6%	30% SMOKE 24P	
8	Good	4.5 min					2.2	30% 24P	

HEART NOTES 9 GOOD

#1, 2, 3 - TOAST - (BURNT TOAST)  
 #4 LEAKS OK - MAYBE A BIT DARK

#5 Good  
 #6 Good  
 #7 Real Good  
 #8 Good  
 #9 Good

#10 - LIGHT - OK 30% 24P S MIN  
 #11 50, 50. 45 SEC. DIP 24P  
 #12 30% MAILLOSE  
 #13 30 MGS POLY  
 #14 30% MAILLOSE 24P OKCA. SMOKE

U-03971

PTO-004115

SCO. IMPROVAL  
 #11  
 #12  
 #13  
 #14

#4	6 min	2% loss	OUT RAST
#7	ROUND PLAIN 5m	2.6 loss	24P 30%
#5	5.5 min	2.1 loss	30 MAILOSE
#8	PLAIN ROUND 4 S	2.2	30 24P
#10	IMPERIAL 5 min	3.5	30 24P
#11	IMPERIAL 10 min	3.25	30 24P
#16	5 min	1.9	30 MAILOSE
#13	PLAIN ROUND 5 MIN	3%	30 OKLA smoke
#14	IMPERIAL 10 min	3.7	30% HICKORY
#15	PLAIN ROUND 5 min	3.6%	30 MES Poly
#16	PLAIN ROUND 10 min	4.2	30% HICKORY

# UNITHERM Food Systems, Inc.

## Cooking Trial Data

Test #	Belt Speed	Cook Time	Product: TURKEY BREASTS		Start Weight	Cooked Weight	Yield	Supplied By: PURDUE	Internal Temp. F.	R marks
			Temperatures C.							
			Zone 1	Zone 2						
#4	80.00	6 MIN	550	650			-2.0%	HEART SHAPED OVEN ROAST		
#5	90.00	5.5 MIN	550	650			-2.1%	HEART SHAPED 30% MAILLOUSE		
#6	103.00	5 MIN	550	650			-1.9%	HEART SHAPED 30% MAILLOUSE		
#7	103.00	5 MIN	550	650			-2.6%	PLAIN ROUND PACK 30% CHARSOUL SELECT 24P		
#8	108.00	4.5 MIN	550	650			-2.2%	PLAIN ROUND PACK 30% CHARSOUL SELECT 24P		
#9	108.00	4.5 MIN	550	650			?	HEART SHAPED 30% CHARSOUL SELECT 24P		

NOTES

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# UNITHERM Food Systems, Inc.

## Cooking Trial Data

Product: TURKEY BREASTS				Supplied By: PURDUE		Remarks
Test #	Belt Speed	Cook Time	Temperatures C.		Internal Temp. F.	
			Zone 1	Zone 2		
#10	103.00	5 MIN	550	650		IMPERIAL PACK
#11	103.00 2 RUNS	10 MIN	550	650	-3.5%	30% CHARCOAL SELECT 24P IMPERIAL PACK
#12	103.00	5 MIN	550	650	3.25%	30% CHARCOAL SELECT 24P IMPERIAL
#13	103.00 2 RUNS	5 MIN	550	650	?	30% MAICOSE PLAIN ROUND
#14	103.00	5 MIN	550	650	-3.0%	30% OKLAHOMA SMOKE PLAIN ROUND
#15	103.00	10 MIN	550	650	-3.7%	30% HICKORY PLAIN ROUND
#16	103.00	5 MIN	550	650	-3.6%	30% MESQUITE POLY
NOTES #16 2 RUNS 103.00 5 MIN 550 650						30% HICKORY -4.2%

#1

#2

#3

#4

#5

#6

PTO-004118

U-03974

Date: 2/7/91

UNITHERM Food Systems, Inc.										Date: 2/7/97
Cooking Trial Data										
Test #	Belt Speed	Cook Time	Product: Turkey Breast		Start Weight	Cooked Weight	Yield	Supplied Internal Temp. F.	Remarks	Supplied By: BOARS HEAD
			Temperatures C.							
			Zone 1	Zone 2						
#1	48	10 min	550	650						30% MES - Poly Exell
#2	11	11	11	11						30% MES 100
#3										50% mes Poly
#4										mes Poly
#5										50/50% skin on
#6										EX TEST SMOKE
NOTES										
#1										
#2										
#3										
#4										
#5										
#6										

# UNITHERM Food Systems, Inc.

## Cooking Trial Data

Test #	Belt Speed	Cook Time	Product: TURKEY BREASTS		Yield	Supplied By: PURDUE	Remarks
			Temperatures C.				
			Zone 1	Zone 2			
			Start Weight	Cooked Weight		Internal Temp. F.	
#4	80.00	6 MIN	550	650	-2.0%		HEART SHAPED OVEN ROAST
#5	90.00	5.5 MIN	550	650	-2.1%		HEART SHAPED 30% MAILLOUSE
#6	103.00	5 MIN	550	650	-1.9%		HEART SHAPED 30% MAILLOUSE
#7	103.00	5 MIN	550	650	-2.6%		PLAIN ROUND PACK 30% CHARCUT SELECT 24P
#8	108.00	4.5 MIN	550	650	-2.2%		PLAIN ROUND PACK 30% CHARCUT SELECT 24P
#9	108.00	4.5 MIN	550	650	?		HEART SHAPED 30% CHARCUT SELECT 24P

## NOTES

#4

#5

#6

#7

#8

#9

UNITHERM Food Systems, Inc.										Date: 2/7/97
Cooking Trial Data										
Product: TURKEY BREASTS										Supplied By: PURDUE
Test #	Belt Speed	Cook Time	Temperatures C.		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Remarks	
			Zone 1	Zone 2						
#10	103.00	5 MIN	550	650			-3.5%		IMPERIAL PACK 30% CHARCOAL SELECT 24P	
#11	2 RUNS 103.00	10 MIN	550	650			3.25%		IMPERIAL PACK 30% CHARCOAL SELECT 24P	
#12	103.00	5 MIN	550	650			?		IMPERIAL 30% MAIOSE PLAIN ROUND	
#13	103.00	5 MIN	550	650			-3.0%		30% OKLAHOMA SMOKE PLAIN ROUND	
#14	2 RUNS 103.00	10 MIN	550	650			-3.7%		30% HICKORY PLAIN ROUND	
#15	103.00	5 MIN	550	650			-3.6%		30% MESQUITE POLY	
NOTES 16 2 RUNS 103.00			5 MIN	550	650		-4.2%		30% HICKORY	
#1										
#2										
#3										
#4										
#5										
#6										

U-03977

PTO-004121

# UNITHERM Food Systems, Inc.

Date: 2/7/97

## Cooking Trial Data

Product: TURKEY BREAST				Supplied By: TURJOB		Internal Temp. F.	Remarks
Test #	Belt Speed	Cook Time	Temperatures C.		Cooked Weight		
			Zone 1	Zone 2			
1, 2, 3	26	18 min	550	650		TOAST	3 - 1 OF EA. OVEN ROAST
4	80	6	550	650			30% MAILLOSE OVEN ROAST
5	90	5.5	550	650			30% MAILLOSE S. SUM
6	103	5	550	650			30% MAILLOSE S. O
PACK 7	103	5	550	650			2.6% 30% SMOKE 24P
8	COOKED	4.5 min					2.2 30% 24P
9							30% 24P

NOTES  
#1, 2, 3 - TOAST - (BURNT TOAST)  
#4 - LAMS - OK - MAYBE A BIT DARK

PTO-004122  
U-03978

#5 GOOD  
#6 GOOD  
#7 REAL GOOD  
#8 GOOD  
#9 GOOD

#10 - LIGHT - OK 30% 24P SMIN  
#11 50, 50. 45 SEC. DIP 24P

#12 30% MAILLOSE  
#13 30 MGS POLY  
#14 30% MAILLOSE POLY OKCA. SMOKE

SYSCO  
PLAIN  
PLAIN  
PLAIN  
PLAIN



#4 6 min 2% loss OVEN RAST

#7 ROUND  
PLAIN 5 min 2.6 loss 24P 30%

#5 5.5 min 2.1 loss 30 MAIL ROSE

#8 PLAIN  
ROUND 4.5 2.2 30 24P

#10 IMPERIAL 5 min 3.5 30 24P

#11 IMPERIAL 10 min 3.25 30 24P

6 5 min 1.9 30 MAIL ROSE

13 PLAIN  
ROUND 5 min 3% 30 OKLA  
SMOKE

14 IMPERIAL 10 min 3.7 30% HICKORY

15 PLAIN  
ROUND 5 min 3.6% 30 MES Poly

16 PLAIN  
ROUND 10 min 4.2 30% HICKORY

PTO-004123

U-03979

# UNITHERM Food Systems, Inc.

## Cooking Trial Data

Product: TURKEY BREASTS			Supplied By: PURDUE						
Test #	Belt Speed	Cook Time	Temperatures C.		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Remark
			Zone 1	Zone 2					
#10	103.00	5 MIN	550	650			-3.5%		IMPERIAL PACK
#11	103.00	10 MIN	550	650			3.25%		30% CHARSEL SELECT 24P IMPERIAL PACK
#12	103.00	5 MIN	550	650			?		30% CHARSEL SELECT 24P IMPERIAL
#13	103.00	5 MIN	550	650			-3.0%		30% MAIOSE! PLAIN ROUND
#14	103.00	10 MIN	550	650			-3.7%		30% OKLAHOMA SMOKE PLAIN ROUND
#15	103.00	5 MIN	550	650			-3.6%		30% HICKORY PLAIN ROUND
NOTES 16			2 RUNS 103.00	10 MIN 550	650		-4.2%		30% HICKORY

#1

#2

#3

#4

#5

#6

# UNITHERM Food Systems, Inc.

## Cooking Trial Data

Date: 2/12/68

Test #	Belt Speed	Cook Time	Product: WINGS		Start Weight	Cooked Weight	Yield	Supplied By: A + O	Internal Temp. F.	Remarks
			Zone 1	Zone 2						
#1	5050	43 MIN	250°F	STEAM ON	3.585	2.875			SMOKE 170°	2 WING TEST SMOKE AFTER 43 MIN. TOTAL TIME 1:10
#2	5050	43 MIN	250°F	STEAM ON	4.290	3.725			SMOKE 155°	2 DRUM TEST TOTAL TIME 1:10 FINISH TEMP 165°
#3	5030	24 MIN	250	STEAM ON	2.640	2.395			SMOKE 125°	4 HOCK TEST OVER ALL 50 MIN TEMP 178°
#4	5030	24 MIN	250	STEAM ON	3.475	3.030			SMOKE 160°	2 RIBLET TEST FINISHED IN RAPID FLOW 4 MINUTES @ 425°
#5										
#6										

NOTES ALL SMOKE APPLIED @ 30% 24 P SPRAYED LIGHTLY FOR 60 SEC.

#1 TWO WING TEST, COMBINED START ? COOK WEIGHTS AS ABOVE  
WINGS LOOK GREAT, BUT COULD STAND LESS TIME

#2 TWO DRUM TEST, COMBINED START ? COOK WEIGHT AS ABOVE COOKED FOR 43 MIN. THEN APP. SMOKE  
THEN SET SMOKE FOR 27 MIN.

DRUMS MAY REQUIRE LONGER REHEAT COOK BEFORE SMOKE APP ? 30 MIN SET.  
#3 4 HOCK TEST COOKED FOR 24 MIN @ 250° THEN APPLY SMOKE FOR 60 SEC.  
FINISH FOR 24 MIN @ 250°

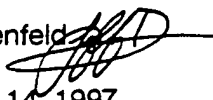
#4 2 RIBLET TEST. COOK FOR 24 MIN. @ 250° THEN APPLY SMOKE. FINISH IN RAPID  
FLOW OVEN - 4 MIN @ 425°. BELT @ 30 INZ, FANS @ 40 INZ.

#5

#6

# MEMORANDUM

TO: Bob Wood  
Vernie Klasen  
Denis Anderson  
Randy Alsleben  
Brett Sims

FROM: Jeff Dierenfeld 

DATE: February 14, 1997

RE: Unitherm Visit and Progress Report

## OPERATION OF THE SYSTEM

The bowl breasts will be removed from the rack manually and placed on the slitting conveyor (Some slight modifications will be made to the knife configuration to ease removal of the bag). The bowl breast travels down the conveyor and is stopped by a swing arm with an air needle. The bag is actually inflated like a balloon (the amount of inflation is determined by a timer). The inflation process does an excellent job of separating the cling film from the product. The breast then travels across a slitteer which opens the bag. The product can then be easily removed from the bag manually.

The stripped units will then be netted manually and placed on the system conveyor. The first step is a smoke spray or atomization. From there, the breasts continue along the conveyor into the oven cabinet. Temperatures are set around 600 degrees. During the 9 MINUTE smoke cycle, the breasts travel through 3 zones, achieving a 97% cook yield.

From there, the breasts are conveyed into a chill cabinet for a 15-20 minute chill back down to <40 degrees and are conveyed directly to the 8600 pack line.

## TEST RESULTS

The 12 units that we tested while I was at the Unitherm facility show that this system has excellent potential for greatly improving the efficiency of our process. We tested several smoke concentrations, application procedures, and oven dwell times, so the test units range from the light end of the spec to the dark. Once we determine the correct process for our product, I believe we will have great consistency.

## FOLLOW UP

I will continue to work with Unitherm on layouts for our facility and the exact capacities and system modifications that will make it best for us. I am recommending that we continue to work with Unitherm and ultimately purchase their in-line cooking system. I will be following up with costs, and other information as it becomes available to me.

c Jeff Shodean  
Scott Anspach

Lola minke  
Kyle Setrum

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U-06859

PTO-004126

UNITHERM Food Systems, Inc.										Date: 2/18/97
Cooking Trial Data					Product: Honey Cured Ham					Supplied By: CONT. IRL - Wilson
Test #	Belt Speed	Cook Time	Temperatures C.		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Remarks	
			Zone 1	Zone 2						
32% Run #1	34.00	14 MIN	600F	650°F					50% 50% CHARCOL SELET 241	
32% Run #2	40.00	12 MIN	u	u					30% u	
38% #3	48.00	10 MIN	u	u					22% CLOSE COLOR	
38% Run #4	49.75	9 MIN	u	u					22%	
38% #5	53.50	8.5	11	u					22%	
#6										

NOTES	
#1	Too Dark
#2	Still Too Dark
#3	CLOSE
#4	OK
#5	OK
#6	

# Rocco NATURAL BROWN SKIN ON TURKEY BREAST

	BELT SPEED	DWELL TIME	ZONE 1	ZONE 2
#1	28. HZ	10 MIN.	515	525
#2	25 HZ	11 MIN.	515	525
#3	23. HZ	12 MIN.	500	500
#4	21.5 HZ	13 MIN.	500	500
#5	28 HZ.	10 MIN	525	550
#6				

U-04003

PTO-004128

UNITHERM Food Systems, Inc.										Date: 2/19
Cooking Trial Data					Product: <u>VALLEY BREAST</u>					Supplied By: <u>RAEFORD</u>
Test #	Belt Speed	Cook Time	Temperatures C.		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Remarks	
			Zone 1	Zone 2						
#1	15:00	19 MIN	425	500					STEAM ZONE 1+2 TOO LIGHT	
#2	15:00	19 MIN	450	525					STEAM ZONE 1+2	
#3	15:00	19 MIN	550	625					STEAM ON 1+2	
#4	22:00	13 MIN	550	625					KIND OF BURST MORE STEAM	
#5	25:00	11 MIN	550	625						
#6	23:00	12 MIN	500	600					STILL TOO LIGHT	
NOTES										
#1 SKINLESS <del>600 GR</del>										
#2 <del>SKINLESS 500 LIGHT</del> , <del>SKINLESS</del> <del>NOT BAD BUT OVER</del>										
#17 22:00 13 MIN 500 STEAM 600 STILL TOO LIGHT BUT										
#18 20:00 14 MIN 500 STEAM 600 STILL TOO LIGHT BUT										
#5										
#6										

U-04004

PTO-004129

F. D. Dryden

## Hormel Foods Research Report

Attention: W. Dion - CO M. Slette - CO

Project Name: Fast & Easy Sausage Browning Tests

Copy List:

M. Benson - R&D D. White - OKC  
T. Hadden - OKC R. Albers - OKC

Written By: S. Hoebet - 5822 J. Ulrich - 5810

Objective:

Evaluate browning tests on Fast & Easy FC504 Sausage

Summary:

A cutting was held at R&D on February 18, 1997. Those attending were W. Dion, M. Slette, J. Ulrich and S. Hoebet.

Product Shown and Comments:

1. Fast & Easy Control with Caramel Color
2. Fast & Easy all Dextrose with no Caramel Color:  
flavor unacceptable  
not as spicy  
color not improved
3. Fast & Easy with Maltose added:  
flavor not acceptable  
color too dark
4. Fast & Easy Control, no caramel color, pre-fried / impingement oven  
flavor not acceptable  
oily taste

Recommendation:

No change in formulation or procedure.

Next Steps:

1. Heat & Control to visit OKC to fine tune impingement oven for yields
2. Heat & Control will attempt to improve color without caramel color
3. OKC, Operations, R&D will evaluate searing unit from Heat & Control for color and yield

Anything we do in the future to change the color must not compromise the present flavor or costs.

pjh (11708)

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U-06864**

PTO-004130



FS155.00  
February 3, 1997

**FAST & EASY PORK SAUSAGE  
NATURAL SPICE  
WITH RED ARROW MALLIOSE**

**FORMULATION**

Pork 40% $\pm$ 1% Fat	93.19%
Water	3.00%
Encapsulated Salt	0.60%
Spice	2.21%
Red Arrow Malliose (dry)	1.00%

**SPICE**

Core Salt TBHQ	0.13%
Regular Salt	0.60%
Sugar	0.50%
Ground Sage	0.30%
Black Pepper 10/20	0.33%
Crushed Red Pepper	0.07%
Herbalox, Type O	0.06%
Firminich 862.192 Lemon	0.10%
Spectra 88	0.12%

**PROCEDURE**

1. Pre-break Regular Pork and 72% Lean Pork 1" and analray separately. Calculate meat mix for 40%  $\pm$  1% Fat.
2. Add meat to Mixer and recheck fat. The mixer must be set at slow speed and only intermittently to allow addition of meat. Do not run mixer continuously when adding meat.
3. Add water and spice and Malliose. Mix for 3 minutes with nitrogen.
4. Add salt and mix 2 minutes with nitrogen.
5. Final grind 5/32" into V-Mag container.
6. Form on Formax Plate #7795 with tenderformer.
7. Immediately cook on impingement oven to 160°F. Internal.
8. After cooling, IQF and layer pack in 10 lb. Food Service box with inter leaf sheets and poly liners.
9. Hold at -20°F. until use.

pjh (11547)

PTO-004131

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U-06865**

FS155.00  
February 3, 1997

**FAST & EASY PORK SAUSAGE  
NATURAL SPICE  
ALL DEXTROSE**

**FORMULATION**

Pork 40% $\pm$ 1% Fat	93.87%
Water	3.00%
Encapsulated Salt	0.60%
Spice	2.53%

**SPICE**

Core Salt TBHQ	0.13%
Regular Salt	0.60%
Dextrose	0.70%
Ground Sage	0.30%
Black Pepper 10/20	0.33%
Crushed Red Pepper	0.07%
Herbalox, Type O	0.06%
Firminich 862.192 Lemon	0.10%
Spectra 88	0.12%
GB Grill Flavor	0.12%

**PROCEDURE**

1. Pre-break Regular Pork and 72% Lean Pork 1" and analray separately. Calculate meat mix for 40%  $\pm$  1% Fat.
2. Add meat to Mixer and recheck fat. The mixer must be set at slow speed and only intermittently to allow addition of meat. Do not run mixer continuously when adding meat.
3. Add water and spice. Mix for 3 minutes with nitrogen.
4. Add salt and mix 2 minutes with nitrogen.
5. Final grind 5/32" into V-Mag container.
6. Form on Formax Plate #7795 with tenderformer.
7. Immediately cook on impingement oven to 160°F. Internal.
8. After cooling, IQF and layer pack in 10 lb. Food Service box with inter leaf sheets and poly liners.
9. Hold at -20°F. until use.

pjh (11549)

PTO-004132

**Confidential  
Restricted Access  
U-06866**

CFO Dubugue 40% Fat Skinless Link

Oven temp 570°

speed 3.1 400 lbs Front only  
yield about 76%

Cook line / Impingement

Dubugue 40% Fat 2oz Putty

Deep Fryer

Time 55 output 42%

temp 380

Impingement Oven

Mass / Height 2.00

Fan	75%	75%
temp	325°	325°
Humidity	85%	45%
Fan	70%	70%

Dwell 0.60

CFO Dubugue Skin on link  
26% Fat and 40% Fat

Oven temp 392° F

speed 4.75

Steam 400 lb 10wtr

Confidential  
Restricted Access  
U-06867

PTO-004133